

# PDR RID Report

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**Document** PDR

<b>RID ID</b>	<b>PDR</b>	66
<b>Review</b>	FOS	
<b>Originator Ref</b>	HQ-OYS-003	
<b>Priority</b>	2	

**Section** NA

**Page** NA

**Figure Table** NA

**Category Name** Design

**Actionee** HAIS

**Sub Category**

**Subject** Design Expandability

## **Description of Problem or Suggestion:**

The presentations only addressed AM-1 but the Flight Operations Segment must address multiple spacecraft of EOS. The design as presented showed no expandability for PM, CHEM etc. future spacecraft. Design areas effected by expandability include:

Software SLOC module updates

Hardware buffer sizes and control queues

FDIR relationships to commanding

Multiple operation of spacecraft

## **Originator's Recommendation**

Update the design to include expandability for future spacecraft.

## **GSFC Response by:**

## **GSFC Response Date**

**HAIS Response by:** D. Herring

**HAIS Schedule** 1/13/95

**HAIS R. E.** A. Miller

**HAIS Response Date** 1/24/95

Reference the response to RID #37.

In addition, it should be noted that hardware buffer sizes, control queues, and FDIR relationships to commanding will be able to have their object designs extended in a straightforward fashion to incorporate mission-specific requirements for subsequent missions. This will be done via the inheritance principle of object oriented design.

The software design can be extended using the object oriented principles of inheritance and encapsulation that foster software reuse. The development of the object models was made to accentuate these OO principles. It is anticipated that a large percentage of the application software can be reused on future missions augmented with mission-specific software. This approach to reuse has been proven on previous heritage missions including PORTS (NASA), GIMTACS and PACS (NOAA), and N-STAR (commercial), as well as on the TPOCC program.

The current contract provides system engineering to consider how FOS can be used to support future spacecraft. The specific hardware, software, and operations to support these additional spacecraft will be baselined after future Change Orders have been authorized.

**Status** Closed

**Date Closed** 2/1/95

**Sponsor** Johns

\*\*\*\*\* Attachment if any \*\*\*\*\*